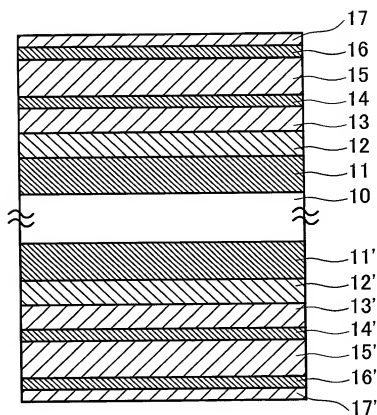


FIG.1



- 10 .....SUBSTRATE  
11,11'...SEED LAYER  
12,12'...UNDER LAYER  
13,13'...THE FIRST MAGNETIC LAYER  
14,14'...NON-MAGNETIC INTERMEDIATE LAYER  
15,15'...THE SECOND MAGNETIC LAYER  
16,16'...PROTECTIVE LAYER  
17,17'...LUBRICANT LAYER

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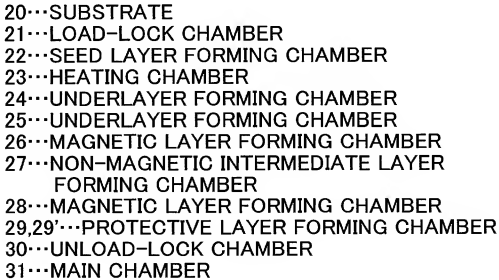
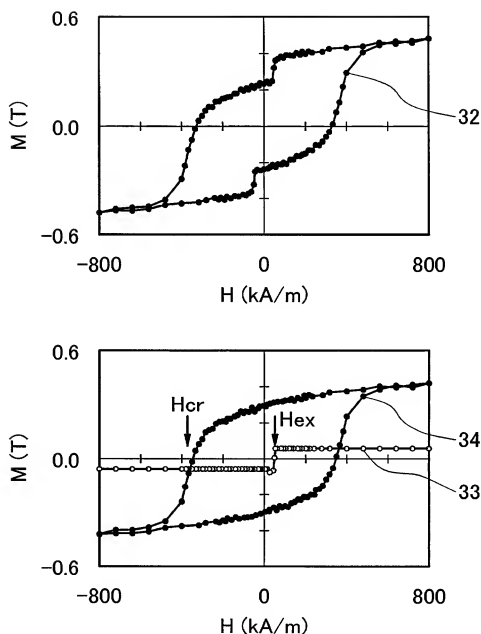


FIG.3

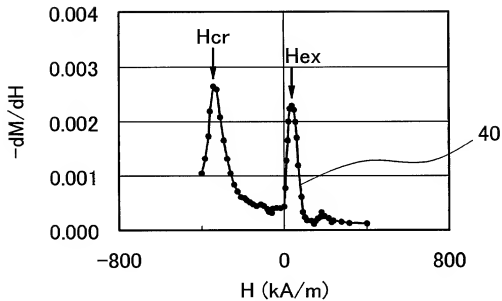


32...MAGNETIZATION CURVE

33...MAGNETIZATION CURVE OF THE FIRST MAGNETIC LAYER  
WHICH IS OBTAINED WITH THE MAGNETIZATION CURVE 32

34...MAGNETIZATION CURVE OF THE SECOND MAGNETIC LAYER  
WHICH IS OBTAINED WITH THE MAGNETIZATION CURVE 32

FIG.4



40...CURVE WHICH IS OBTAINED BY DIFFERENTIATING  
THE MAGNETIZATION M BY THE MAGNETIC FIELD  
H ON THE MAGNETIZATION CURVE 32

FIG.5

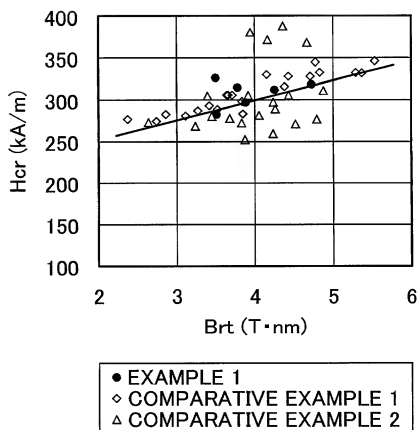


FIG.6

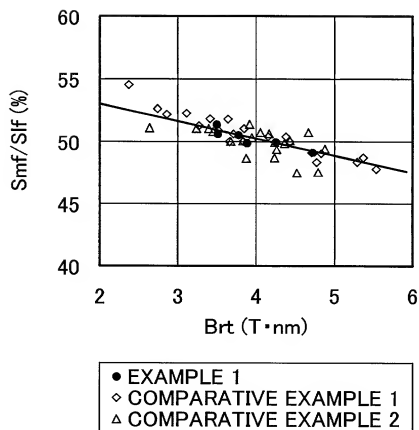


FIG.7

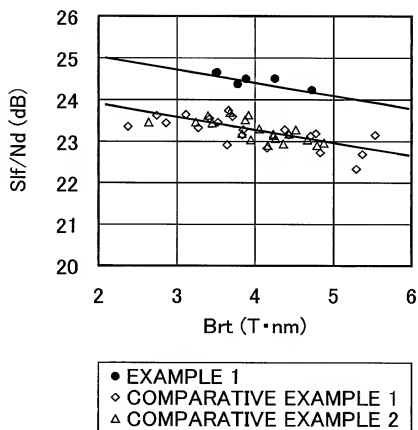


FIG.8

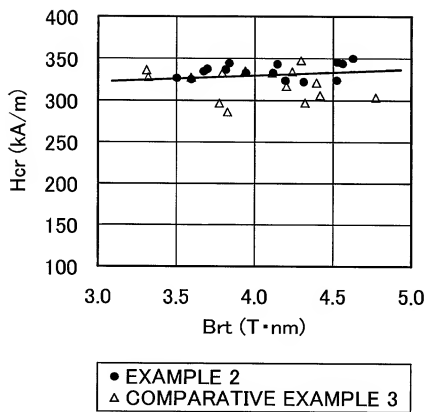




FIG.9

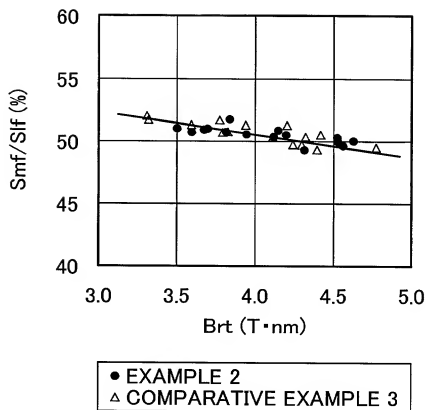


FIG.10

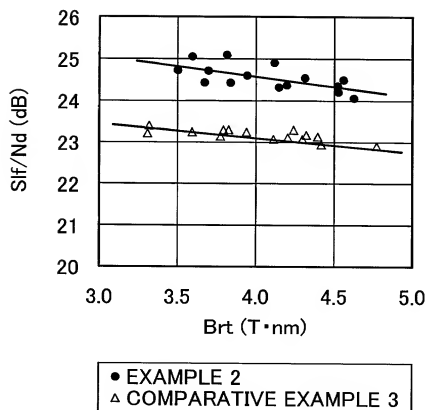


FIG.11

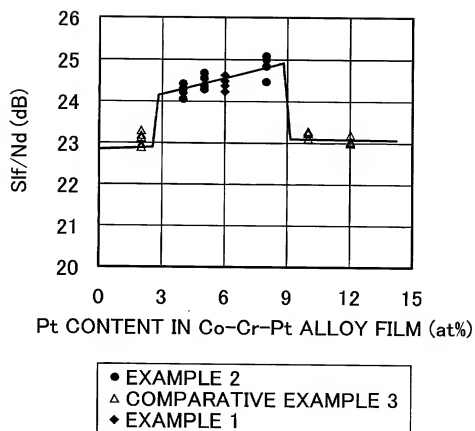
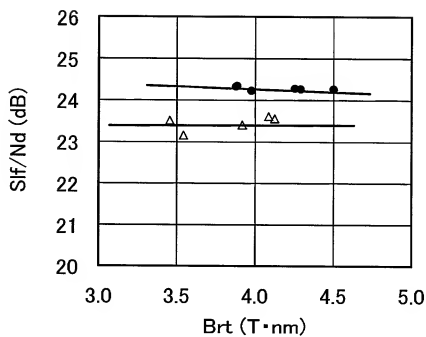


FIG.12



● EXAMPLE 3  
△ COMPARATIVE EXAMPLE 4

FIG.13

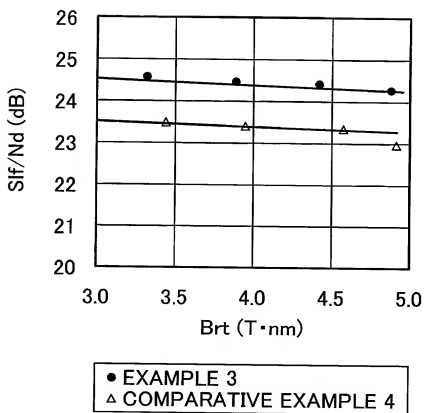


FIG.14

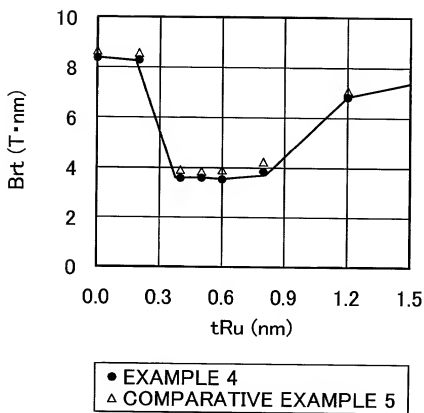


FIG.15

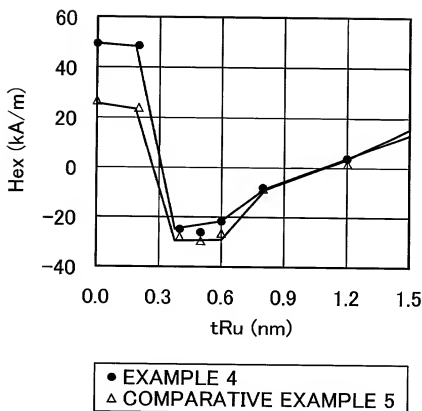


FIG.16

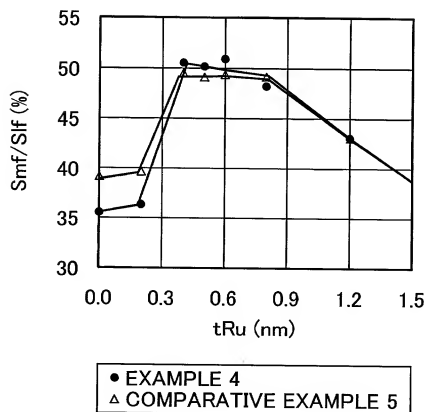




FIG.17

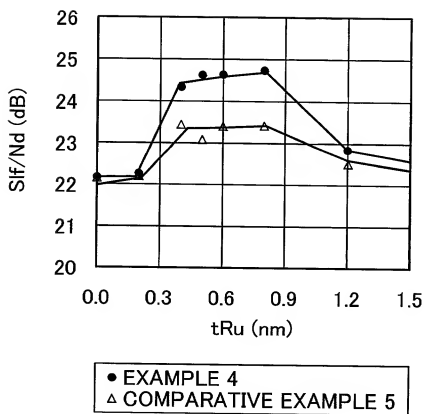


FIG.18

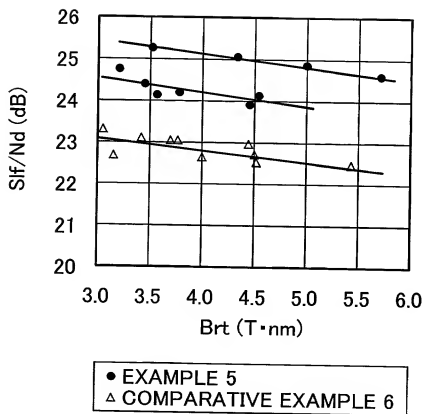
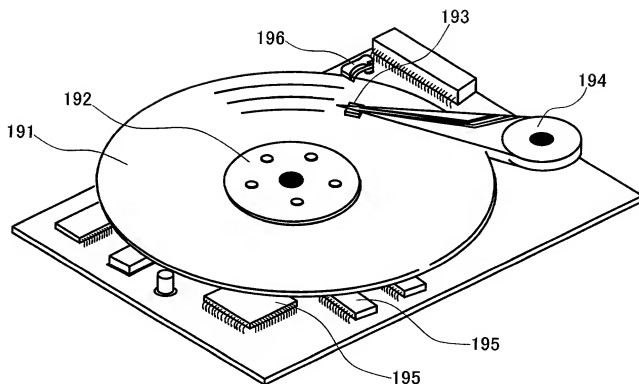


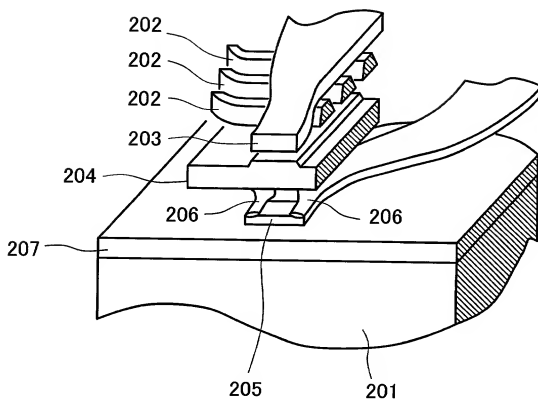
FIG.19



- 191...MAGNETIC RECORDING MEDIUM  
 192...DRIVING UNIT FOR ROTATING THE MAGNETIC RECORDING MEDIUM  
 193...MAGNETIC HEAD  
 194...HEAD ACCESS SYSTEM FOR DRIVING THE MAGNETIC HEAD  
 195...WRITE/READ SIGNAL PROCESSING MEANS  
 196...HEAD UNLOADING MECHANISM

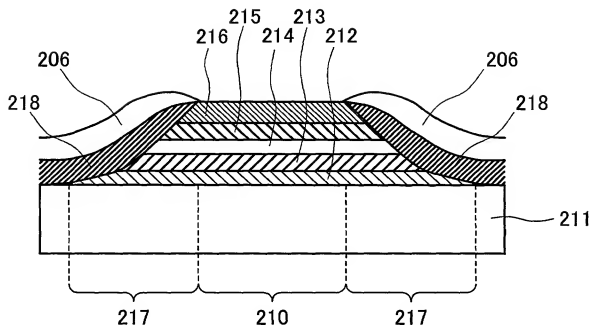
2025-02-25

FIG.20



- 201...SUBSTRATE  
 202...COIL  
 203...UPPER MAGNETIC POLE  
 204...LOWER MAGNETIC POLE/UPPER SHIELD LAYER  
 205...MAGNETORESISTIVE SENSOR  
 206...ELECTRODE PATTERN  
 207...LOWER SHIELD LAYER

FIG.21



- 210...SIGNAL SENSING REGION  
 211...GAP LAYER  
 212...Ta BUFFER LAYER  
 213...FIRST MAGNETIC LAYER  
 214...INTERMEDIATE LAYER  
 215...SECOND MAGNETIC LAYER  
 216...ANTIFERROMAGNETIC ALLOY LAYER  
 217...TAPERED PORTION  
 218...PERMANENT MAGNETIC LAYER